## Sample TEMP Cover/Approval Page

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# TEST AND EVALUATION MASTER PLAN

FOR

_____ PROJECT

Submitted by:

_____ _____
Systems Engineer Date

Approved by:

_____ _____
Project Manager Date

# TEST AND EVALUATION MASTER PLAN (TEMP)
# SAMPLE TEMPLATE

## 1. General

Include in this paragraph a brief description of the Test and Evaluation Master Plan including any special considerations or provisions unique to the product or project. The paragraph should also include any introductory information describing the general concept and approach to test and evaluation, integration, and commissioning of the product or p project.

## 2. Test and Evaluation

This section should include information on performance, testing, and evaluation steps and procedures of the system, subsystems and components to: (1) ensure systematic reduction of risks; (2) ensure fulfillment of the applicable requirements; (3) demonstrate conformance of equipment and facility design; (4) secure quantitative measures of performance; and (5) determine whether undesirable design or procedural features have been introduced. Types of testing utilized should be defined including developmental, qualification, acceptance, or a combination of these or other tests.

### 2.1 Test Planning

This section should include test planning for particular subsystems or components and the responsible organizations establishing the appropriate test programs including the development of detailed test plans and procedures. Review and approval authority information should be defined in this section ensuring that test plans and procedures establish the proper test conditions to adequately measure the specific technical performance parameters. Those who will be responsible for test reports, problem analysis and corrective action plans should be defined in this section. This will ensure the results, analysis, and recommendation are fully integrated into the management and engineering decision process.

### 2.2 Test Planning Factors

In planning for specific testing programs, the following factors should be defined in this section:

- Levels of testing such as subsystem or component
- Types of tests and conditions related to critical performance parameters.
- Responsibilities for testing and relationships with other organizations.
- Numbers of test articles, hardware and software, and major resource requirements.
- Correlation with the project schedule.

### 2.3 Verification Methods

Verification methods should be defined in this section for use in the test and evaluation matrix. These verification methods may be used in a variety of products including hardware and software. Examples of verification methods include:

- *Inspection.* An observation or examination to determine conformity with requirements.

- *Analysis.* A review or study of data which may use mathematical expressions or models to show that requirements are met.

- *Demonstration.* A functional exercise wherein the qualitative requirements are verified by observation.

- *Test.* An exercise wherein quantitative performance is compared to requirements and is documented.

### 2.4 Reporting

This section should define necessary reports for each significant verification activity, when they will be prepared, and by what cognizant organization. These defined reports should include both successes and failures. These report should include steps toward progress or corrective action.

## 3. Integration and Commissioning

System integration is the bringing together of subsystems and components for installation, checkout, and verification. This section should include any information necessary to make sure testing is completed properly by taking into account the complete system. Plans which address the special Safety and Quality Assurance aspects of integration and commissioning should be defined in this section.

### 3.1 Integration

This section should include information necessary for testing and verification integration steps.

***3.1.1 Equipment Staging.*** This section should include hardware and equipment installation information for appropriately staged testing and verification. Steps for final acceptance and other necessary procedures prior to product released should be defined. Also this section should include the planning for the arrival of equipment to facilitate the orderly flow of any work required during the testing and verification stages.

***3.1.2 Hardware Installation.*** Additional information for inspection and any formal approvals should be included in this section. Reference should be made to any installation drawings and procedures.

***3.1.3 Software Installation.*** Information on the testing of software and any formal approvals should be included in this section.

***3.1.4 Checkout.*** Checkout test verification activities should be included in this section. Checkout tests ensure that equipment is properly connected, pre-aligned, leak-checked, and otherwise ready to undergo formal verification. Software as well as hardware may need checkout test verification.

***3.1.5 Integration Verification.*** Defined integration verification activities should be included in this section to ensure compliance with formally established requirements in accordance with approved test plans and procedures.

***3.1.6 Verification Methods and Reporting.*** Any additional verification methods and reporting information should be include in this section although most verification methods and reporting requirements should follow the guidelines of sections 1.1.3 and 1.1.4.

### 3.2 Commissioning

Upon successful product integration a fully commissioned product may exist. A commissioning may occur at this time and this section should contain information on any steps required for this process. Commissioning allows for fine-tuning of the product's performance goals, the correction of deficiencies, and necessary re-testing.

## 4. Long Lead Items and Facility Requirements

No long lead items have been identified to support testing. No special facilities are required to support testing.

## 5. Personnel

Personnel working on the project or product and who will conduct the testing should be defined in this section. This section should also include individuals responsible for test result certification and any special personnel requirements should be identified.

## 6. Calibration

Information on any special calibration requirements should be identified in this section.

## 7. Training

Information on any training requirements or personnel should be identified in this section.